FOREIGN AGRICULTURE

Inspecting corn in the PRC.

China's Crop Outlook

July 5, 1976

Foreign
Agricultural
Service
U.S. DEPARTMENT
OF AGRICULTURE

FOREIGN AGRICULTURE

VOL XIX July 5, 1976 No. 27

In this issue:

2 China's Crop Outlook Dims
By Marion R. Larsen

5 North Africa Anticipating Near-Record Wheat Crops
By Kenneth L. Murray

6 EC Position on U.S. Tariff Plan Highlights MTN Problem
By John F. Hudson

8 An Inside Look at Livestock Exporting

11 Soviet Grain Prospects Up Following Poor 1975 Crop
By Judith G. Goldich and Fletcher Pope, Jr.

This week's cover:

Chinese workers inspecting harvested corn. Grain prospects for 1976 in the People's Republic of China are not as good as had been expected. See article opposite.

Earl L. Butz, Secretary of Agriculture

Richard E. Bell, Assistant Secretary for International Affairs and Commodity Programs

David L. Hume, Administrator, Foreign Agricultural Service

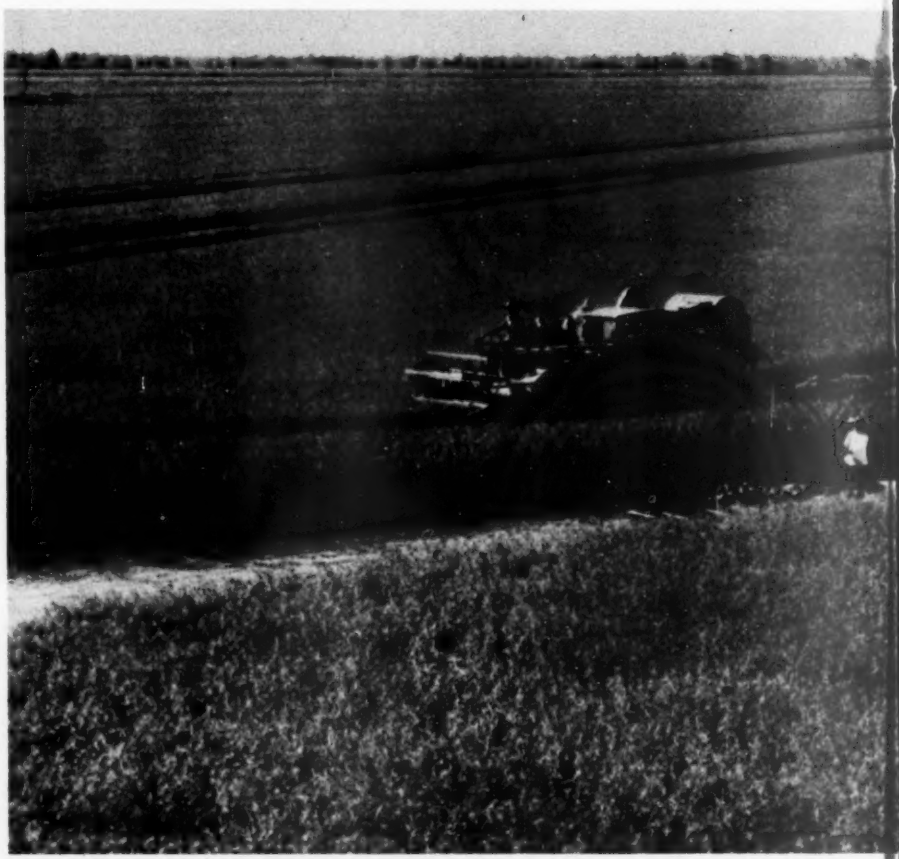
Editorial Staff:
Kay Owsley Patterson, Editor
Beverly J. Horsley, G. H. Baker, Marcellus P. Murphy, Isabel A. Smith, Lynn A. Krawczyk.

Advisory Board:
Richard A. Smith, Chairman; John C. Foltz, Gordon O. Fraser, William Horbaly, James L. Hutchinson, Richard M. Kennedy, J. Don Looper, Larry B. Marton, Brice K. Meeker.

The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Foreign Agriculture* has been approved by the Director, Office of Management and Budget through June 30, 1979. Yearly subscription rate: $34.35 domestic, $42.95 foreign; single copies 70 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. **Contents of this magazine may be reprinted freely. Use of commercial and trade names does not imply approval or constitute endorsement by USDA or Foreign Agricultural Service.**

China's Crop Outlook Dims

By MARION R. LARSEN
Foreign Demand and Competition Division
Economic Research Service



DESPITE strenuous efforts to offset the impact of drought in its northern regions and wet, cold weather in the south, the People's Republic of China (PRC) may be hard pressed this year to equal its record 1975 grain harvest of 280 million metric tons (including soybeans).

Abnormal weather—running the gamut from cold spells to continuous rainfall, frost, hailstorms, dry spells, and drought—affected winter crops in the PRC and made it difficult to complete spring sowings on schedule and in good condition. In addition, by possibly delaying plantings in China's multiple-cropping culture, the bad weather could extend the late harvest season into the fall frost period, posing another hazard to the 1976 crops.

PRC imports of farm products, meantime, continue sluggish in the aftermath of the nation's third successive record harvest, and cotton is about the only U.S. product with a chance of being imported during 1976. This will be a sharp contrast to the more than $800 million worth of U.S. farm products sold to the PRC in fiscal 1974, when the PRC ranked as a leading U.S. farm market.

The tentative forecast of a possible shortfall in grain production this year assumes that the recent improvement in PRC weather may not be adequate to make up for the retarded growth and light stands caused by earlier bad weather. Total planted area, on the other hand reportedly is above that of 1975.

The PRC's difficulties began with heavy rainfall during the fall sowing of winter wheat. This was followed by an unusually dry winter with little snow cover in the northern parts and then spells of cold weather during the spring.

These conditions affected stands of winter wheat and soil conditions for spring wheat, forcing an early beginning of irrigation in many sections of the North China Plain, especially in Hopeh Province, where precipitation has varied from half to two-thirds of normal since late summer 1975.

In the drought-stricken Heilungkiang Province, emergency measures were particularly extensive, but spring wheat area there still reportedly fell some 130,000 hectares (1 ha=2.471 acres) below that of 1975. Heavy rains in late May finally broke the drought in this major wheat-producing Province, improving the outlook for its crops.

Other crops of the early harvest —barley, pulses, and rapeseed—are grown in southern China, where weather during the fall and winter favored normal crop development. Rapeseed plantings were again expanded significantly, and a New China News Agency broadcast on April 21, 1976, claimed that area of overwintering wheat and other summer crops was increased by 667,000 hectares from that of 1975. Last year, this area reportedly was increased 133,000 hectares.

In addition, the country during September 1975-March 1976 carried out its largest-ever farmland improvement and capital construction program for agriculture. During this campaign, which marks the beginning of a new 5-year plan, over 100 million peasants and cadre have participated in projects to improve farmland, irrigation systems, and drainage facilities and to increase availability of inputs, especially organic fertilizers. The expanded irrigation and other improvements resulting from this program are expected to offset some of the negative effects of unfavorable weather.

Even with the prospect of more favorable weather in the immediate future, however, the total wheat crop (comprised of about 13 percent spring wheat and 87 percent winter wheat) may miss the nearly 39 million tons estimated for 1975. If this is added to estimates of the early rice crop—which may fall short of the good 1975 harvest—and other winter grains (barley) and pulses —which probably did reasonably well —the total early grain crop probably will approach, but may not equal, the 1975 record.

IMPROVED weather between now and harvesttime, especially for early rice and spring wheat, might add some strength to this forecast. However, the delayed transplanting and the retransplanting caused by cold, wet weather leave a question mark on the level of the early rice crop.

Although reports are sketchy, indications are that most of the late (fall-harvested) grains were planted on time and under fairly favorable conditions.

Soybeans in northeast and northwest China were planted under less than ideal conditions, but considerable catchup growth is possible given improved weather.

Other crops—including cotton, bast fibers, sugarcane, tea, and tobacco—were reportedly planted on time and are progressing well. Acreage of cotton may have been boosted to compensate for the reduced crop of 1975, when excessive rain and floods cut cotton output some 500,000 bales below the previous year's to around 11 million.

Livestock and poultry production this year will probably continue to rise following good progress in 1975. The feed base apparently was expanded some in 1975, and the push toward collectivized production of hogs is expected to continue in 1976.

Clockwise from left: A workers' brigade harvests rice in the PRC; members of a Chinese cadre school select corn seed for planting; and harvesting wheat. In the wake of drought and other unfavorable weather, the PRC's crop expectations for 1976 have dimmed, and it now looks as if the grain crop could fall short of 1975's.

Should the PRC's farm output overcome the impact of bad weather and reach a new high in 1976, it would mark a decade and a half of almost steady production advances. Last season, for instance, saw grain production hit its alltime high of around 280 million tons (including soybeans), compared with 275 million in 1974, plus estimated record outturns of peanuts, 2.8 million tons; rapeseed, 1.4 million; and sugar, 2.5 million.

Despite the uncertain production prospects for 1976, PRC imports of grain this year probably will not surpass 2.15 million tons, which would be the lowest level since 1961—when the PRC became a net importer of grain for the first time since 1949—and less than a third of the record 7.8 million tons imported in 1973/74.

Wheat will probably account for all the grain and come from Canada and Australia under long-term agreements. The United States, which shipped 1.5 million tons of corn and 2.8 million of wheat in the record-setting year of 1973, is not expected to supply any grain during 1976.

The PRC may turn to the United States for some cotton this year, however, if U.S. supplies and prices are right. Rebounding world demand for PRC textiles, plus the constraint on supply caused by last year's reduced crop, indicate that the PRC may need to import around a million bales of cotton during 1976.

PRC exports of farm products during 1976 may expand somewhat but are not likely to retain the relative importance of past years, reflecting the rapid rise in industrial exports and the dim sales prospects for rice and soybeans—the PRC's major farm exports. Up until recently, farm products had accounted for nearly half the nation's foreign exchange earnings. But last year that share fell to 40 percent as petroleum exports rose sharply.

PRC rice exports probably will be held down by the slow demand and low prices for rice this year. Currently, these exports are estimated at about 1.2 million tons, compared with 1.6 million shipped in 1975.

Exports of soybeans also are in question following recent deferments in filing orders from the 1975 crop with the explanation that China must first meet its domestic stockpiling needs. Last year, the PRC exported about 350,000 tons of soybeans, nearly 250,000 of which moved to Japan.

Other exports of the PRC include tea, silk, peanuts, cottonseed, peanut oil and rapeseed; meat products; fruits and vegetables, and a number of other products. The United States receives a wide variety of such exports—over 200 different items—but the total value of that trade is insignificant, at less than $30 million in 1975.

PEOPLE'S REPUBLIC OF CHINA: IMPORTS OF GRAIN, FISCAL YEARS 1973-76[1]
[Million metric tons]

Item	1972/73	1973/74	1974/75	1975/76[2]
PRC grain imports	6.4	7.8	6.2	2.1
From:				
Argentina	.1	.3	.7	—
Australia	.3	1.2	1.4	.8
Canada	4.4	1.4	2.3	1.3
United States[3]	1.5	5.0	1.5	—
Other	—	—	.2	—
PRC wheat imports	5.4	5.7	5.7	2.1
From:				
Argentina	—	—	.3	—
Australia	.3	1.2	1.4	.8
Canada	4.4	1.4	2.3	1.3
United States[3]	.6	3.2	1.5	—
France	—	—	.2	—
PRC corn imports	1.0	2.1	.4	—
From:				
United States[3]	.9	1.8	—	—
Argentina	.1	.3	.4	—

[1] Details may not add to totals because of rounding. [2] Projected.
[3] Includes transshipments through Canada.
Economic Research Service, The Agricultural Situation in the *People's Republic of China and Other Communist Asian Countries*, Foreign Agricultural report to be published in July 1976.

PEOPLE'S REPUBLIC OF CHINA: PRODUCTION OF SELECTED CROPS, 1966-75

Item	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975[1]
	1,000 metric tons	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*
Grain:										
Rice	96.4	100.2	95.4	97.9	106.6	112.6	109.4	113.0	120.0	122.0
Wheat	27.7	28.2	25.4	27.2	31.3	30.7	35.9	34.4	37.0	38.7
Miscellaneous grains[2]	65.4	74.2	68.0	68.1	75.4	76.4	68.3	75.2	79.6	80.4
Tubers[3]	25.5	27.4	26.2	26.8	26.7	26.3	26.4	27.4	28.4	28.9
Total grain	215.0	230.0	215.0	220.0	240.0	246.0	240.0	250.0	265.0	270.0
Soybeans	6.8	7.0	6.5	6.2	6.9	6.7	6.5	8.0	9.5	10.0
Peanuts	2.4	2.3	2.2	2.4	2.6	2.6	2.4	2.6	2.7	2.8
Rapeseed	.9	1.0	.9	.8	.9	1.0	1.2	1.3	1.2	1.4
Cottonseed	3.6	3.9	3.6	3.5	4.0	4.4	4.2	5.2	5.0	4.8
	Mil. bales	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*	*Mil. bales*
Cotton	8.3	8.9	8.3	8.1	9.2	10.2	9.8	11.7	11.5	11.0

[1] Preliminary. [2] Includes coarse grains (corn, barley, oats, rye, sorghum, and millet), pulses, and other minor grains. [3] Includes white and sweet potatoes, manioc, and taro on a grain-equivalent basis.

Smaller imports seen

North Africa Anticipating Near-Record Wheat Crops

By KENNETH L. MURRAY
Foreign Commodity Analysis, Grain and Feed
Foreign Agricultural Service

FAVORABLE WEATHER conditions in Morocco, Algeria, and Tunisia could mean a near-record wheat crop for these Maghreb countries in 1976. Rainfall during the growing season has been adequate and timely in this area, which frequently experiences drought.

As of early June, the Maghreb wheat production for 1976 was projected at 4.9 million tons, 40 percent above last year's drought-stricken crop. This is just under the record 1972 crop of 5.0 million tons.

The bulk of the area's wheat harvest takes place in June and July. Beyond early June it is very late in the season for a reversal in the crop's very good prospects. However, in some sections of the Maghreb, the wheat crop was still in an early developmental stage and a desert wind (sirocco) could shrivel wheat kernels and reduce yields somewhat. Continued rains could also lower output by increasing plant diseases (such as rust) and lodging, but such rains are unusual so late in the season.

The Maghreb has recently become an important wheat importing area. Morocco, Algeria, and Tunisia imported an average of 3.0 million tons during the past 3 years. Wheat imports during the 1975/76 season are estimated at 3.2 million tons; this is double the 1969/70-1972/73 average. The sharp rise in imports during the past few years has been mainly because of the poor wheat crops harvested in 1973, 1974, and 1975.

The author has just returned from a trip through North Africa.

Production during these years averaged only 3.5 million tons, some 17 percent under the average for the previous 3 years. This decline was caused by serious shortfalls in Algeria and Morocco, resulting mainly from inadequate moisture. Tunisia, on the other hand, has shown a steady increase in wheat output.

Smaller wheat imports are forecast for the Maghreb during 1976/77. This year's larger crop will probably cut imports to about 2.3 million tons, or about 30 percent under the 1975/76 level. Also, it appears that there will be some exports during 1976/77. Tunisia may have an exportable surplus of as much as 100,000 tons of Durum wheat—the first significant amount available for export by a Maghreb country in 10 years.

U.S. wheat sales to the three Maghreb countries for shipment in 1976/77 will probably reach only 700,000-800,000 tons, or about half the 1.5-million-ton average of 1973/74-1975/76. Other main wheat suppliers to the area, such as Canada, the European Community, and Argentina, are expected to fare relatively better than the United States, although smaller overall imports into the Maghreb will also mean some decline for these other exporters.

The 1976 wheat crop in **Morocco** was a month late. The harvest was expected to be completed at the end of June. This season's abundant rainfall lasted later than usual, and was accompanied by cooler-than-usual weather. Although it has been damaged somewhat by disease and lodging, the 1976 wheat crop—as of early June—was projected at 2.1 million tons, up one-third from last year's level and the best output since 1972.

About three-fourths of the Moroccan crop is Durum wheat. Most of it does not enter marketing channels but is consumed on the farm where it is converted into a semolina product called couscous. This is also the pattern in Tunisia and to a lesser extent, Algeria. Morocco's bread wheat needs must be supplied to a large extent through imports, which go principally to the country's urban areas.

Barley is also a major foodgrain in Morocco, especially in the southern part of the country, where most of it is produced and consumed as bread. The 1976 Moroccan barley crop is projected at 2.0 million tons, well above the average 1.6 million tons produced during 1973-75.

Morocco's wheat imports for 1976/77 are projected at 1.0 million tons, down from an estimated 1.4 mililon tons in 1975/76. Import demand this year may be reinforced by the Government's decision to build wheat-reserve stocks to 500,000 tons, or about double the current level. Also, Morocco's demand for grain is rising fairly rapidly because of its high population growth rate of about 3.5 percent per year, mounting consumer income, and continued migration to urban areas. The same general statement regarding increasing demand can be made for Algeria and Tunisia.

The past three **Algerian** wheat crops

Continued on page 12

MAGHREB COUNTRIES:[1] WHEAT SUPPLY AND DISTRIBUTION

Year	Area harvested	Yield	Production	Total imports	Imports from U.S.	Exports	Consumption
	1,000 hectares	*Quintals per hectare*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*
1970/71	4,925	7.5	3,685	1,663	1,002	5	5,431
1971/72	5,085	8.1	4,106	1,809	1,146	3	5,947
1972/73	5,434	9.3	5,030	1,382	744	5	5,772
1973/74	4,880	6.5	3,184	2,915	1,759	5	6,034
1974/75	5,037	7.5	3,758	2,925	1,470	5	6,123
1975/76[2]	5,014	7.0	3,510	3,150	1,235	—	7,071
1976/77[3]	5,300	9.2	4,850	2,300	750	100	7,350

[1] Morocco, Algeria, Tunisia. [2] Preliminary. [3] Forecast.

EC Position on U.S. Tariff Plan Highlights MTN Problem

By JOHN F. HUDSON
Trade Negotiations Division
Foreign Agricultural Service

THE COUNTRIES participating in the Multilateral Trade Negotiations (MTN) in Geneva will give their first reactions this week to a proposal the United States made on March 23 for a general formula for reducing tariffs.

The proposing of the tariff formula is generally viewed as the first concrete step into substantive negotiations in the MTN (apart from special negotiations with developing countries on tropical products).

The U.S. formula would apply to all products. Deep cuts would be required —close to the maximum authorized under the Trade Act of 1974—except that an allowance would be made for cutting high duties more than low ones. Other countries, however, can be expected to seek much lower average cuts and to avoid the application of the formula to some products.

In particular, the European Community (EC) has maintained that this procedure should not be used for agricultural products. The position of the EC highlights what may be the most important problem in the remaining negotiations.

During the year that the MTN has been underway in Geneva—since the passage of the Trade Act—it has become increasingly clear that major differences in approach to the treatment of agriculture exist between a number of the main participants.

Many countries, following the lead of the European Community, seek to negotiate on agricultural products separately from other products. These countries are essentially opposed to the removal or significant reduction of barriers to agricultural imports. By keeping agriculture separate in the negotiations, they think they can minimize the risk that general trade liberalizing procedures will be applied to agriculture.

The United States and other large agricultural exporters have an interest in obtaining significant liberalization of agricultural trade and feel that this can best be accomplished if agriculture and industry are negotiated together. In fact, in the case of the United States, the Trade Act of 1974 mandates the negotiation of agricultural trade barriers "in conjunction with" industrial trade barriers to the maximum extent feasible.

The dichotomy of view arises particularly with respect to nontariff barriers to trade. These are being dealt with in a number of separate subgroups.

"The proposing of the (general) tariff (by the United States) is generally viewed as the first concrete step into substantive negotiations in the MTN."

In the Subgroup on Subsidies and Countervailing Duties, the United States has proposed that rules be adopted prohibiting—among others—direct export subsidies on all products. The Community, however, does not regard its export restitutions as export subsidies and has not been willing to discuss these measures except in the context of the Agriculture Group and the Subgroups on Grain, Meat, and Dairy Products.

The Subgroup on Quantitative Restrictions has attempted to promote bilateral consultations between pairs of countries to examine barriers of interest to each other. Until recently a number of countries had declined to consult on barriers affecting agricultural products except in the Agriculture Group. However, as a result of a compromise agreement reached in December these consultations are now expected to take place pursuant to procedural suggestions put forward by the Chairman of the Trade Negotiations Committee (TNC).

The Subgroup on Technical Barriers to Trade has been considering rules to encourage countries to use product standards and methods of enforcement of standards which are internationally agreed to. A draft code containing the rules will be submitted to the Agriculture Group for its review and comment prior to finalization.

The agriculture question has not come up directly in the remaining groups that have been established for the conduct of the MTN. The Sectors Group continues to study trade problems that pertain to certain industrial sectors. The Safeguards Group has been considering new approaches for the use of temporary, escape-clause-type restrictions on trade. And the Tropical Products Group is conducting consultations between developed and developing countries on a limited range of concessions covering both agricultural and industrial products in this special area.

The Agriculture Group was established to carry out a provision of the Tokyo Declaration of September 1973, which stated that with regard to agriculture: the negotiations "should take account of the special characteristics and problems in this sector." In the view of the United States, such special characteristics and problems are extremely limited and remain to be demonstrated.

In the view of the European Community, these special characteristics are inherent in the nature of domestic agricultural policy considerations and, therefore, virtually the entire sector should be treated separately. The United States believes that negotiations on agricultural products, as with industrial products, should consist of the removal or reduction of tariffs and other barriers to trade. The EC asserts that the nature of agricultural trade and support programs is such that the goal for most products should be stabilization of international markets, primarily through international commodity agreements.

As a result, MTN discussions of agri-

cultural questions have been extremely sensitive and difficult. Agreement was finally reached in December 1975 to establish a work program for the Agriculture Group involving a notification and consultation procedure for all products other than grains, meat, and dairy products. The work in this area will be linked with that underway in the other groups through a comprehensive reporting procedure designed to ensure that the various groups work in liaison with one another and the negotiations move forward in a uniform way.

The Agriculture Group has also created three subgroups: One on grains, one on meat, and one on dairy products to examine problems in these areas. The activities of these subgroups to date have been concerned with the collection of information and general debate on the merits of alternative approaches to the negotiations.

In November 1975, President Ford met with the leaders of France, Germany, Italy, Japan, and the United Kingdom at Rambouillet, France, where they agreed to intensify the effort to conclude the Multilateral Trade Negotiations in 1977. It was further agreed that the negotiations should aim at "significantly expanding agricultural trade."

The other countries participating in the trade negotiations endorsed this decision in December 1975 at a meeting of the Trade Negotiating Committee. In accordance with that endorsement the United States and other countries have intensified their consultations with each other in order to clear away disagreements on as many issues as possible in 1976 so that negotiations can be concluded by the end of 1977.

Outside the MTN, the United States and other countries have been meeting in London to consider a world food security plan and have also recently agreed to extend the International Wheat Agreement for 2 years.

Progress Made In Rome Toward Formation of IFAD

Although some movement was made toward the financing of an International Fund for Agricultural Development (IFAD) at a meeting convened in Rome by the UN Secretary General, June 10-13, there was still some disunity between the pledging countries.

Developed countries pledged approximately $531 million, including $200 million by the United States. The U.S. pledge and those of some other developed countries were conditioned on a $1-billion pledge target being achieved, with half of the amount coming from Member States of the Organization of Petroleum Exporting Countries and half from the developed countries.

OPEC countries, however, held to a decision reached in a meeting of their Ministers of Finance in Paris on May 11, 1976, that they would commit only $400 million and make it conditional upon the developed countries pledging $600 million. So the conflicting points of view of the OPEC and the developed countries remain to be resolved, and the current pledges, totaling approximately $931 million, are still short of the pledge goal of $1 billion in convertible currencies.

Achievement of the $1-billion-pledge target was one of the conditions for bringing IFAD into existence.

There was, however, sufficient optimism in the recent Rome meeting that these problems could be solved that the first meeting of a Preparatory Commission was held, and plans were made for a second meeting of that body in September 1976.

If established, as now appears possible, IFAD would be an independent organization. It might then enter into an agreement with the United Nations also to serve as a specialized agency.

The executive board of IFAD, which would control the disbursement of funds, would consist of 18 members, six each from developed, OPEC, and developing countries. It is anticipated that development projects financed by IFAD would be administered by already established organizations.

Formation of IFAD, as a body to channel new funds into investment in agriculture, has been under consideration since it was recommended by the World Food Conference in 1974.

—By RALPH W. PHILLIPS
Executive Director, International Organization Affairs, FAS

Record Seen for East European Grain

Generally good weather and greater sown area indicate total grain production in Eastern Europe may set a record in 1976. Oilseed area is probably the same as last year's.

Sown grain area is estimated at 29.8 million hectares—a 600,000-hectare expansion over the 1975 level, but less than in 1971 and 1972. Wheat area this year rebounded by 500,000 hectares from the previous year's, and corn and barley continued their upward trends, while rye and oat areas declined.

Oilseed area stabilization came despite expansionary policies of most governments in the region.

Fall-sown crops wintered well, but the April and May dry spell in Czechoslovakia, the German Democratic Republic, and Poland was harmful to nearly all crops, particularly those grown on sandy soils. Where water was available, irrigation was used at full capacity.

Rapeseed suffered from March freezes in the northern part of Eastern Europe. Reports from Poland indicate that in the spring, about 20-25 percent of the rapeseed area was resown with other crops. But despite the loss in sown area, the harvested area will be about the same as in 1975.

Rains at the end of May provided a respite from a dry spell in the northern countries and in Hungary. But because of a deficit of about 20 percent in soil moisture, more-than-normal precipitation will be needed in the following months to assure good harvests.

As of early June, a wheat harvest of 32-33 million tons was estimated, 3-4 million tons higher than last year's result, but slightly below the 1974 record. If weather remains favorable during the rest of the corn growing period, total grain output of 94-95 million tons is attainable. This would be 6-7 million tons more than in 1975 and 3-4 million tons more than the 1974 record.

—THOMAS A. VANKA, ERS

an inside look at LIVESTOCK EXPORTING

"I've shipped everything from bull frogs to prize bulls," says J. D. Sartwelle, president of the Port City Stockyards, Houston, Texas, as he describes his company's pioneering role in air shipping of live animals. How that trade began and some of the successes and problems of exporting are discussed in the article below, based on a series of recent *Foreign Agriculture* interviews in the Houston area.

J. D. Sartwelle, president, Port City Stockyards, Houston. It was around 1946, immediately after World War II, when the Texan exporters loaded a DC-3 with six cattle destined for Guatemala—launching probably the first U.S. air shipment of cattle to a foreign market. They had built their own crates, which were as heavy as the cattle, and manhandled the crates and live cargo aboard the plane, ending up with a total payload of 6,000 pounds—3,000 of cattle and 3,000 of crates. Although "everybody was scared the agile animals were going to tear up the airplane" and hesitant about each step in this unproven business, the first shipment of live animals was successful enough to launch a new era in livestock trade.

J. D. Sartwelle, whose organization was the United States first terminal livestock market with an export division and the one to handle this historic shipment, told *Foreign Agriculture* how it was in those pioneering days. The air trade began, said Sartwelle, after E. J. Kyle, then Ambassador to Guatemala, "saw the tremendous need for purebred cattle in Guatemala and asked his old friend Bob Kleberg, president of the King Ranch, to make a gift of Santa Gertrudis to Guatemala." Kleberg agreed to do this on condition that the cattle be moved by air—almost upheard of, according to Sartwelle, since previously only a few very expensive race horses had gone by air.

"From that humble beginning," Sartwelle continued, "we went through the postwar planes, starting with the DC-3, moving to the C-46, the old workhorse DC-4, Constellations, the DC-6, and into the present jet age." Today's DC-8 hauls upwards of 100,000 pounds of live animals and the larger 747's and DC-10's now coming into use can carry around 225,000 pounds.

A little later another shipment of livestock—a record for that time—was made to Guatemala for use in its livestock development program. The Guatemalan representatives purchased "347 head of assorted livestock—purebred bulls, heifers, stud horses, a few sheep, and hogs" and shipped them in seven loads via a DC-4. As a result of everybody working together, creating regulations as they went along, "not a single animal was lost in flight." After landing, however, "one heifer did jump out of the plane and run over a cliff," Sartwelle added.

The earliest markets were in Central America and northern South America, especially Venezuela and Colombia. Ocean shipments then outnumbered air shipments five to one because costs were higher. But soon maritime costs began rising faster than air costs, so that beginning about the early 1960's, the cost benefit ratio of the two methods began to equalize. Considering all things—elapsed time, feed, and care—the pendulum has now swung in favor of air shipments, said Sartwelle.

"Cattle are the best air passengers we know of," he stated, with the only real problems arising when they are confined for long periods on the ground, or when handlers at the point of destination mishandle the livestock.

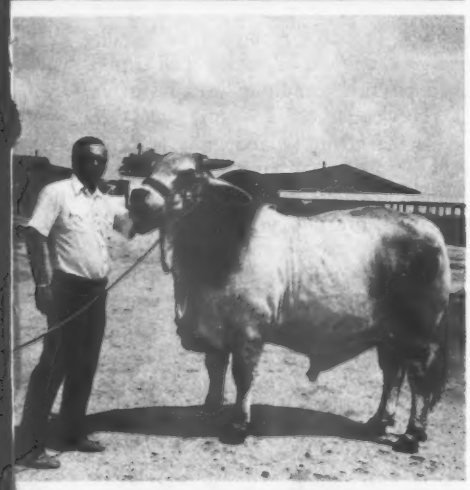
What has he shipped? Practically everything, said Sartwelle, who added that cattle sales invariably spark sales of other products. "A cowman coming to this country purchases anything from windmills to barbed wire, diamonds for his wife, clothes for the children, boats, refrigerators, equipment—you name it, he's bought it."

One particular planeload recalled by Sartwelle boasted cattle, hogs, sheep, horses, 2 dozen bull frogs, 4 dozen quail, three pecan trees, a motor boat, a refrigerator, and three hunting dogs.

Sartwelle then described a typical procedure for U.S. cattle exports:

• The foreign buyer usually first contacts the association for the breed

Top to bottom: Young Holstein cattle in the barnyard-like interior of a jet used to air ship live animals to foreign markets—a trade that has changed "from an art to a science" in the past few decades, according to J. D. Sartwelle, one of the pioneers in this business; a portable pen used by an airline for shipping live animals; the wife of a U.K. dairy producers inspecting young Brahman cattle at the ranch of Leon Locke; a closeup (left) of one of the bulls on the ranch of John Joyce; and Joyce (right) posing with one of his 2-year-old Brahman bulls.



of cattle in which he is interested, with the association assigning a field escort to the buyer or informing several association members of the buyer's interest.

- The buyer makes a tentative selection and then contacts a freight forwarder to ascertain shipping costs, type of transportation, and other shipping details that will be handled by the forwarder.
- The forwarder arranges for transportation and the health tests required by country of destination, reserves facilities for the required quarantine periods, and then advises the seller of these findings.
- The buyer makes letter-of-credit arrangements with a bank—"99 percent of this business is done on an irrevocable letter-of-credit basis":
- The letter-of-credit arrives at the U.S. bank and is sent to seller, along with a copy to the freight forwarder.
- As the day of shipment nears, last minute checks are made about arrival date of carriers and transportation to quarantine station.
- The cattle are picked up and delivered to a quarantine station at least 24 hours before loading. A field inspector of the Animal Plant and Health Inspection Service (APHIS) will be on hand to compare the health certificates to the actual animals, check the eartags used to identify the animals, inspect animals for disease and then to certify the animals for overseas export.
- Finally, animals are taken to the plane and loaded on board, again under the eye of the APHIS inspector, for their trip to the foreign market.

Leon Locke, cattle producer. In the tiny town of Hungerford, Texas, some 60 miles southwest of Houston in the flat lowlands of the Gulf coastal plain, is the brick office of J. D. Hudgins, Inc., a Brahman producing and exporting company. Here, its president, Leon Locke, talked about the company's long history in the cattle export business.

The five farms operated by descendants of the founder, Joel Hudgins, together encompass some 20,000 acres and boast 2,300 mother cows to rank as one of the largest Brahman producers in this country. This also is one of the oldest producers, the first cattle being direct descendants of Brahmans brought to this country from India in 1906.

The company has been shipping Brahman cattle to foreign markets since 1933, when some Brahman bulls were first exported to Mexico. Three years later, a large shipment moved to Australia, helping launch the Australian Brahman herd. One of the family members—Edgar Hudgins—was named patron of the Australian Brahman Breeders Association.

Although U.S. cattle no longer can be exported to Australia, because of that country's restriction against imports from countries where Blue Tongue disease is present, the ranch has in the intervening years developed an impressive export trade. Its exports since 1955, for instance, have totaled over 6,600 head, or more than half of all its Brahman sales.

The buyers of these animals come mainly from the tropics—Guatemala and other countries of Central America, plus Argentina, Venezuela, Mexico, South Africa, and neighboring African countries. Here, Brahman cattle are valued for their high resistance to heat, insects, and disease, as well as for their longevity.

BUYERS from these markets—many of whom travel to the ranch to select the animals—today generally prefer to ship their newly purchased cattle by air. "It takes 28 days to reach Cape Town, South Africa, by ship, and feed must be supplied for 68 days," Locke said, with any of the remaining feed dumped at sea because of restrictions against its entry. This all adds to the cost as well as to the wear on the animals, while by plane "it's 30 hours at the most."

Locke worries, however, about the high cost of shipping, which he said can even exceed the cost of the animals and has prompted some Latin American buyers to purchase from closer countries such as Brazil. He also sees stringent rules and regulations as an obstacle to exporting, forcing buyers to go through middlemen to make transportation and other arrangements.

His advice to exporters: "It's a highly specialized area in which you need some experience or help from the experienced." If you want to export, however, "visit foreign countries, let people know what you have, and make contacts on a person-to-person basis."

John Joyce, custom fitter, broker, and breeder. Near the small Texas town of Wharton is the ranch of John Joyce, who plays a variety of roles in the production and export of Brahman cattle. He has worked as a Brahman

fitter—a finisher and trainer of animals for showing—during the past 14 years and has had the national champion Brahman bull from 1971 to 1975 plus some record sales for individual animals. Among these was a $36,000 bull sold to a foreign buyer in 1973 and a $100,000 bull sold in Florida.

Joyce also is part owner of a ranch which includes a number of Brahman-Hereford crosses, as well as some three-way crosses with Charolais, Simmental, and other breeds. And he exports semen and has conducted Braham clinics in foreign countries.

"Exporting is not as easy as it sometimes sounds . . . there are a lot of problems, a lot of waiting periods. . . ."

About his overseas markets, Joyce said: "Central America used to be one of the best markets . . . now they're producing their own. As for South America—Colombia, Argentina, Paraguay, and Ecuador—we're still shipping cattle there—but not in great numbers." South Africa was a big market last year, taking around 1,000 head of Brahman cattle, but sales there stopped recently when the Government ceased issuing import permits.

Like Leon Locke, Joyce prefers air over ocean shipping because of the shorter transit period and better condition of the animals on arrival. He also is a believer in person-to-person contact as the way to do business.

"Exporting is not as easy as it sometimes sounds," he said. "There are a lot of problems, a lot of waiting periods . . . you might sell cattle today and wait 6 months before you ship them." He also cautioned that since these cattle represent U.S. cattle generally, producers should send good-quality animals wherever they might be shipping.

Wendell Schronk, executive secretary of American Brahman Breeders Association. As an officer in a U.S. cattle breed association, Wendell Schronk services some 2,000 cattle producers plus the foreign buyers who write or visit his office in search of purebred cattle. Schronk said that Brahman cattle, developed in subtropical parts of the United States, have become increasingly popular as export animals as a result of the livestock expansion programs being stressed in many of the tropical nations. To be efficient producers and withstand the heat and onslaught of insects and disease, Schronk said, "cattle in the tropics ideally should have at least half Brahman blood." The carcasses of these crosses have much lean meat with less fat covering, marbling, and waste fat than the standard U.S. animal.

Exports of the breed last year ranked second only to those of Charolais and declined by much less than did total U.S. cattle exports in what was a rather poor year for cattle shipments. (Exports of beef breeding cattle last year totaled 22,238 head, or only 53 percent of those in 1974. Brahmans made up 5,084 head, or 23 percent of that 1975 total, compared with 5,796 head in 1974. The main markets were South Africa, Argentina, Venezuela, and Mexico.)

So far this year, said Schronk, there have been increases in shipments to Venezuela, reflecting that country's ambitious livestock development program; South Africa (prior to that Government's recent cessation of import licensing); and Thailand.

Average prices for export animals, he said, vary considerably depending on quality, age, and breeders; commercial bulls bring about $750-$1,000; breeding-age bulls of herd-sire quality $4,000-$5,000; young heifers 12-18 months old, $1,200-$1,400; and heifers of breeding age, $1,500-$2,500.

Dr. Robert L. Hummer, veterinary consultant for the American Humane Association. "We in the humane movement feel that insufficient attention has been given to the humane shipment of large animals," said Dr. Hummer, whose organization is following with interest the innovations being made in air shipment of live animals to overseas markets.

He added that there are three major problems in shipping animals—the amount of oxygen available to them, the carbon dioxide level of the air in the compartment, and the amount of moisture in the breath of each animal. These can be maintained at acceptable levels with proper ventilation systems. "In one instance that was reported," he said, "the moisture in the air hitting the cold air in the aircraft fuselage was such that condensate in the cockpit made it necessary for the pilots to protect the instrument panel." This became a serious problem not only for the animals, but also for the aircraft because of the moisture's corrosive effect on the structure of the plane.

One carrier overcame the problem, Hummer said, by building a fan and ventilation system into the cargo department and operating them until after the plane was airborne. This led to better circulation and a reduction of humidity and carbon dioxide. Other carriers, likewise, have come up with changes to correct such problems.

Hummer also emphasized the importance of having secure fencing and partitions between pens and separating the animals according to sex, breed, and weight. What happens if this isn't done? "Think of the animal as he thinks," said Hummer. "That animal is frightened as a result of the noise and strange environment and any opening that he sees is the logical place to head for."

The added stress likely to be encountered during shipment of live animals is "something we don't know as much about from a medical standpoint as we would like, but we do realize that an animal under stress, exposed to various types of infectious organisms, is going to react differently than under normal conditions." The animal should be rested sufficiently, fed, and watered before shipping, with the "rest period" for the animal proportionate to the number of hours that it has been on the road.

". . . an animal under stress, exposed to various types of infectious organisms, is going to react differently than under normal conditions."

Given such care, and the use of air carriers properly equipped to handle livestock, animals beginning their trip in good physical condition usually arrive in good condition, Hummer said. He added that, from an economic point of view, shippers that have produced good animals want to "have 100 percent of the animals arrive in good conditions and remain so at least 2 weeks later." The producer who loses cattle in flight and then has some succumb to problems later on the farm will not get the repeat sales he needs to stay in the export business. —BEVERLY J. HORSLEY

Soviet Grain Prospects Up Following Poor 1975 Crop

By JUDITH G. GOLDICH
and FLETCHER POPE, JR.
Foreign Demand and Competition Division
Economic Research Service

THE U.S. Department of Agriculture currently forecasts 1976 grain production in the USSR at 190 million tons,[1] one-third above 1975's very poor showing. Despite the improvement over last year, production at this level will be a disappointing 15 million tons below the Soviet's announced grain production goal of about 205 million tons. The total grain area is estimated at 128 million hectares (1 ha=2.471 acres)—about the same as 1975.

Winter grain production—including wheat, rye, and some barley—is forecast at 44 million tons, 10 percent below the 49 million tons reaped in 1975.

Winter grains were seeded under particularly unfavorable soil moisture conditions last fall, after the harvest of that year's drought-devastated crop. Parts of the winter grain area received little precipitation in the fall, leading to poor seed germination and plant development before the onset of winter. These areas are especially susceptible to freeze damage. Surviving fields have thinner stands than normal. It is estimated that less than three-quarters of the 36 million hectares seeded last fall remains to be harvested this year.

Prospects for the Soviet spring grain crop—now forecast at 146 million tons—are much brighter than in 1975 when only 91 million tons were produced. Spring wheat production is now projected at 42 million tons, up 40 percent from 1975's 30 million-ton crop. Total wheat output may be 75 million tons.

At least average weather will be required to achieve the forecast spring grain production totals. In parts of the Urals, Kazakhstan, Western Siberia, and Altay Kray, much drier than average weather prevailed until late May, and scattered showers in early June over the Urals did little to alleviate soil moisture problems.

After getting off to a late start, this year spring seeding in the USSR was carried out at a normal pace. Temperatures in March ran about 1-2°C below normal over the major agricultural areas, resulting in a 10-15 day delay in the start of spring seeding in the extreme southern part of the European USSR. However, temperatures during April generally averaged somewhat above normal, aiding spring seeding progress. The lag in spring seeding was largely overcome by mid-April, but still equaled 2-3 days at the normal seeding rate for the latter part of April.

In general, precipitation was not an important impediment to seeding this spring. Precipitation in European USSR averaged about one-third above normal during the second half of April and the first half of May. The improvement in moisture supplies was very beneficial. Only in selected areas such as the Western Ukraine and the northern part of European USSR was precipitation sufficiently heavy and prolonged to cause seeding problems.

Soviet spring grain seeding, excluding corn, was completed on 96.7 million hectares—100.5 percent of plan—by the end of the first week of June. The spring grain area this year is slightly more than that of preceding years.

Although the Soviets generally do not announce spring seeding plans, planned area can usually be calculated from the reported share of total completed. The calculated planned grain area dropped by 14 million hectares between April 26 and May 31. Planned area usually varies somewhat from week to week, but the decreases in 1976—an average of nearly 3 million hectares per week—were unusual.

No explanation for the steady reductions in planned area has been advanced by the Soviets, although it seems likely that timely rains in April and May may have improved prospects itn some winter grain areas enough to prevent reseeding to spring grains .A second possibility is that the soil moisture supply over parts of the spring grain area dropped rapidly enough in early and mid-May to cause the Soviets to leave some of the land in fallow, although conditions improved during the last 10 days of the month.

Total corn planting on collective and State farms, at an estimated 19 million hectares, is about equal to the 1972-74 average. Corn-for-grain area is estimated at 4 million hectares, also roughly equal to the 1972-74 average.

Cotton planting was substantially completed by May 10, with cotton farmers planting more than 2.9 million hectares, slightly above the 1975 cotton area, but still a record level. The farmers have pledged to produce 8.5 million tons of seed cotton in 1976, 600,000 more than in the previous year. Torrential rains fell in Tadzhikistan, the third ranking Republic in total Soviet cotton output and first in output of fine-fiber cotton, during mid-April to mid-May, washing out a reported one-third of the planned 290,000 ton fine-fiber (Egyptian-type) cotton crop there, and damaging canals and hydrotechnical installations. The washed out area was reseeded with medium-staple varieties (Upland type) of cotton, which have a shorter growing season.

SUGARBEET farmers planted over 3.7 million hectares in 1976. Planting was delayed in the first half of April, but essentially completed in early May—roughly the same as in recent years, with the planted area also equal to that of 1975. Cool, wet weather delayed germination of beets, while aiding weed infestations. This necessitated reseeding in some areas and interfered with thinning in others.

Sunflowers were planted on an area estimated at 4.75 million hectares, which is almost equal to the area planted in 1975, but substantially more than the 4.1 million hectares harvested for seed. Neither production nor procurement goals have been announced for 1976.

Vegetable seeding was delayed somewhat this spring, but was back to average by the third week of May. Potato planting on State and collective farms, on the other hand, lagged behind past performance levels until the end of May. Heavy rain in the main potato area of the north European USSR in late April and May were responsible for the slow progress.

[1] All tons are metric.

U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C. 20250

PENALTY FOR PRIVATE USE, $300
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

First Class

FA SERIA300SBISSDUE020R 1
SERIALS DEPT
XEROX UNIV MICROFILMS
300 N ZEEB RD
ANN ARBOR MI 48106

African Wheat Crops

Continued from page 5

have been damaged by moisture shortages and production has averaged less than 1.0 million tons. As of early June, the 1976 crop was projected at about 1.6 million tons, marking a sharp production recovery, and more in line with pre-1973 levels. About 60 percent of Algerian wheat production is Durum, the remainder bread wheats.

Algeria has become the Maghreb's largest wheat importer. Imports during the past 3 years have averaged about 1.5 million tons, half the Maghreb's total. Algeria is one of the world's major Durum wheat importers. In recent years such Algerian Durum imports have reached around 1.0 million tons (two-thirds of Algeria's total wheat imports), and have accounted for roughly one-third of world Durum trade. During 1975/76, the United States shipped about 750,000 tons of Durum to Algeria, or about half of U.S. Durum exports.

Given the bright prospects for the Algerian wheat crop in 1976, the country's total wheat imports during 1976/77 are expected to decline to about 1.0 million tons. Canada is assured of its normal share of the Algerian wheat import market because of the recent signing of an agreement between the two countries for the purchase of between 875,000 and 1.0 million tons of Canadian wheat over a 3-year period. The great bulk of these deliveries will probably be Durum, sold in direct competition with the United States.

The Algerian economy is centrally planned and Government officials have often expressed the desire to conduct trade relations on a long-term, contract basis. Such arrangements reportedly are also being discussed with Argentina, which has supplied Algeria with small quantities of Durum wheat in recent years.

Tunisia will have an exportable surplus of Durum if the 1976 crop meets early-June expectations. This year's crop was projected at the record level of 1.15 million tons, about 80 percent of which is Durum.

Despite Tunisia's steady gain in wheat production over the past 6 or 7 years, Tunisia has not been a significant wheat exporter since 1962-66, when Durum exports averaged slightly over 100,000 tons per year.

Although Tunisia may be regaining its standing as a Durum exporter, its need for bread wheat imports continues to be about 300,000 tons per year. With only a small annual bread wheat production, the lack of interchangeability between Durum and bread wheats, and its growing urban population, Tunisia's bread wheat import requirement will likely remain strong for some time to come. The Government would like to encourage more domestic bread wheat production in place of Durum, but it has proven difficult to alter traditional production practices.

The United States has supplied about half of Tunisia's wheat import requirements (all bread wheat) during the past 3 years, although the U.S. share in 1975/76 was reduced by increased competition from the EC. The outlook for U.S. wheat exports to Tunisia in 1976/77 is dampened by an expected large EC crop and the Community's liberal use of export subsidies.

NEW FAS PUBLICATIONS

- Dutch Feed Mixtures Influenced By EC Grain Import Levies (FG 3-76)
- U.S. Cotton Exports Slip, Sales Rise in February (FC 6-76)
- Citrus Production: Northern Hemisphere Outlook for the 1975/76 Season (FCF 3-76)
- Increased Exports, Reduced Imports Trim U.S. 1975 Dairy Trade Deficit (FD 2-76)
- World Pork Output in 1976 May Not Reach 1975 Level (FLM 3-76)
- World Meat Production Expected To Increase 2 Percent in 1976 (FLM 4-76)
- Exports of U.S. Breeding Swine Down Slightly in Calendar 1975 (FLM 5-76)
- U.S. Beef Breeding Cattle Exports Declined Nearly 50 Percent in 1975 (FLM 7-76)
- Cattle Numbers Rose Slightly in 1975; Swine Numbers Down, Sheep Total Up (FLM 8-76)
- U.S. Livestock Exports Increased In February Over Year-Earlier Level (FLM MT 5-76)
- U.S. Customs Service Data on Meat Imports—March 1976 (FLM MT 6-76)
- World Walnut and Filbert Crops Set Record; Almond Crop Down Slightly (FN 4-76)
- World Exports of Oilseeds, Fats, and Oils To Register Above-Trend Gains in 1976 (FOP 4-76)
- U.S. Imports of Vegetable Fibers Other Than Cotton Declined in 1975 (FVF 2-76)
- Mexico's 1975/76 Strawberry Output Declines; U.S. Imports Down in 1975 (FDAP 3-76)

Single copies may be obtained free from the Foreign Agricultural Service, USDA, Washington, D.C. 20250, Rm. 5918-S; Tel. 447-7937.

*U.S. GOVERNMENT PRINTING OFFICE: 1976 211-407/51 1-3